

TECHNICAL INFORMATION

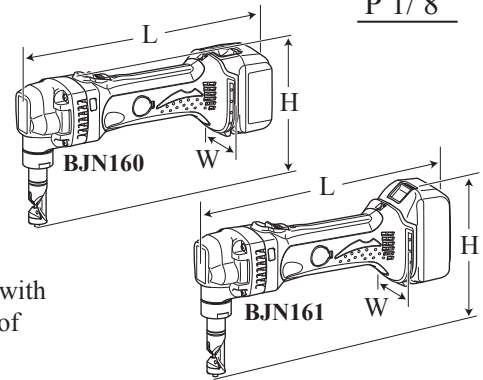


PRODUCT

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Model No. ▶ BJN160/ BJN161 (LXNJ01*1)

Description ▶ 1.6mm (16Ga) Cordless Nibbler
*1 Model number for North and Central American countries



CONCEPT AND MAIN APPLICATIONS

Models BJN160 and BJN161 (LXNJ01*1) are cordless nibblers developed with the same design concept as AC tool JN1601, featuring slim motor housing of DC angle grinder BGA450.

Punch and die (that are the same as those of JN1601), and following 3.0Ah Li-ion batteries provide high cutting capacity.

- BL1430 (14.4V) for BJN160
- BL1830 (18V) for BJN161 (LXNJ01*1)

Note: 1.3Ah Li-ion battery BL1415/ BL1815 cannot be used for these models.

These products will be available in the following variations.

Dimensions: mm (")		
	BJN160	BJN161
Length (L)	313 (12-3/8)	
Width (W)	78 (3-1/16)	
Height (H)	174 (6-7/8)	189 (7-7/16)

Model No.	Charger	Battery		Battery cover	Plastic carrying case	Offered to
		Type	Quantity			
BJN160Z	No	No	No	No	No	All countries except North and Central American countries
BJN160RFE	DC18RC	BL1430	2	1	Yes	
BJN161Z	No	No	No	No	No	
BJN161RFE	DC18RC	BL1830	2	1	Yes	North and Central American countries
LXNJ01Z*1	No	No	No	No	No	
LXNJ01*1	DC18RA	BL1830	2	1	No	

All models also include the accessories listed below in "Standard equipment".

Specification

Specification		Model	BJN160	BJN161 (LXNJ01*1)
Battery	Cell		Li-ion	
	Voltage: V		14.4	18
	Capacity: Ah		3.0	
	Energy capacity: W		44	54
	Charging time (approx.): min.		22 with DC18RC (DC18RA*1)	
Max output (W)			280	350
No load speed: min. ⁻¹ =spm (strokes per minute)			1,900	
Max cutting capacities: mm (Ga)	Mild steel with tensile strength up to 400N/mm ²		1.6 (16)	
	Stainless steel with tensile strength up to 600N/mm ²		1.2 (18)	
	Aluminum with tensile strength up to 200N/mm ²		2.5 (12)	
Minimum cutting radius: mm (")	Cut SPCC sheet of 1.6mm (16Ga) thick		Inner edge: 45 (1-3/4), Outer edge: 50 (2)	
Overload protection by current limiter			Yes	
Weight according to EPTA-Procedure 01/2003*2: kg (lbs)			2.1 (4.6)	2.2 (4.8)

*2 with Punch, Die and Battery

Standard equipment

Punch 1 Die 1 Hex wrench 2.5 1 Wrench 32 1

Note: The standard equipment for the tool shown above may vary by country.

Optional accessories

Punch	Fast charger DC18RA (for USA, Canada, Guam, Panama, Mexico, Colombia)
Die	Fast charger DC18RC (All countries except the countries above)
Battery BL1430 for Model BJN160	Charger DC24SC
Battery BL1830 for Model BJN161 (LXNJ01*1)	Charger DC18SD
	Automotive charger DC18SE

▶ Repair

CAUTION: Repair the machine in accordance with “Instruction manual” or “Safety instructions”.

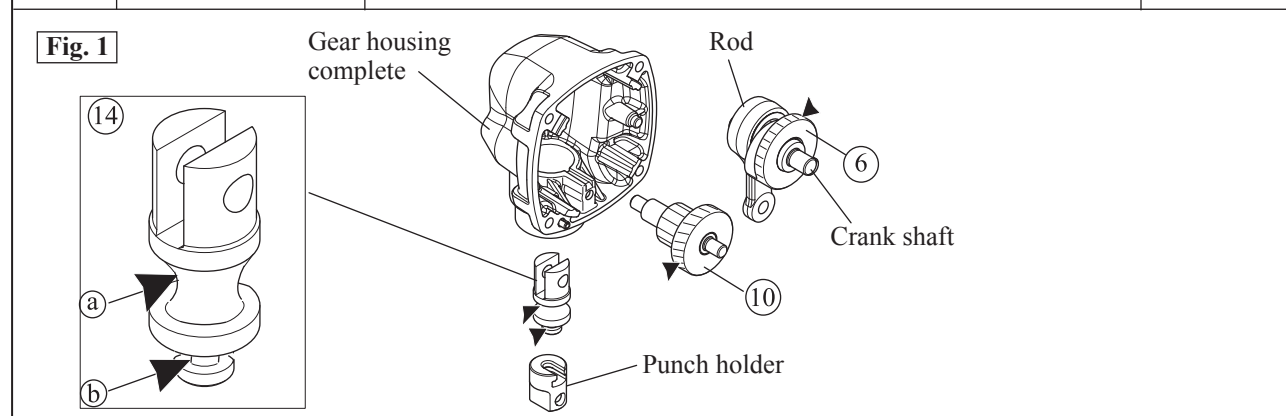
[1] NECESSARY REPAIRING TOOLS

Code No.	Description	Use for
1R030	Bearing setting pipe 25-17.2	assembling Spur gear 31 to Crank shaft
1R032	Bearing setting plate 8.2	supporting Crank shaft when assembling Spur gear 31
1R217	Ring 22	supporting Spur gear 31 when removing Crank shaft
1R282	Round bar for Arbor 8-50	removing Crank shaft from Spur gear 31

[2] LUBRICATION

Apply **Makita grease FA No.2** to the following portions designated with the black triangle to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate	Amount
⑥	Spur gear 31	Teeth portion where the small gear of ⑩ engages	Approx. 3 g
⑩	Gear complete 16-36	Teeth portion of large gear where Armature's gear engages	Approx. 4 g
⑭	Ram	Ⓐ Curve of hourglass shaped portion	Approx. 1 g
		Ⓑ narrow portion between small rim and large rim	Approx. 1 g



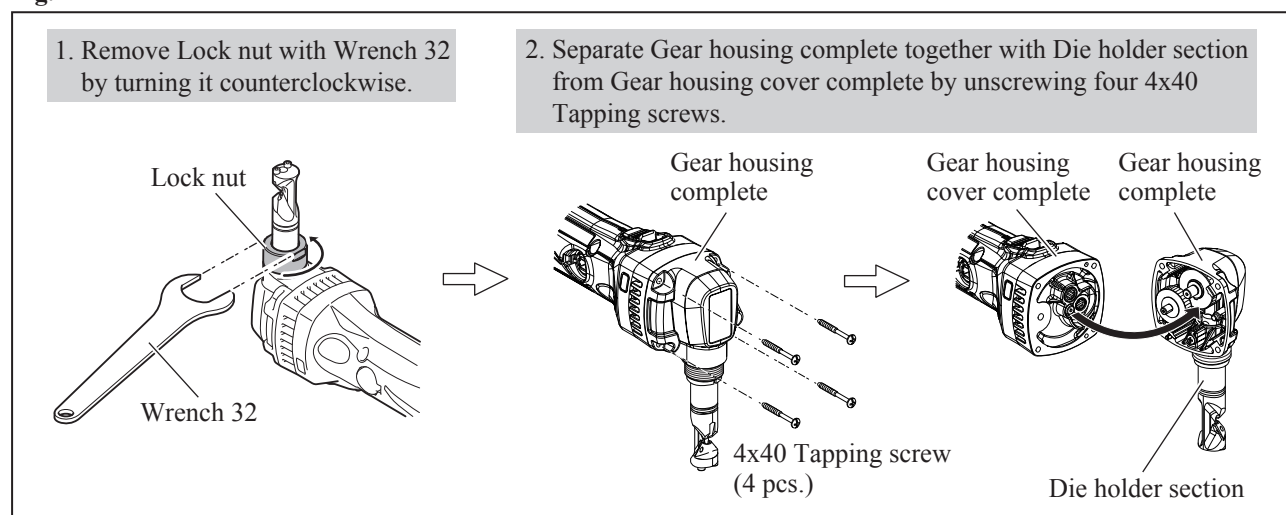
[3] DISASSEMBLY/ASSEMBLY

[3] -1. Gear housing complete

DISASSEMBLING

(1) Separate Gear housing complete as drawn in Fig. 2.

Fig. 2



► Repair

[3] DISASSEMBLY/ASSEMBLY

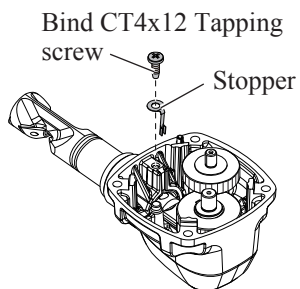
[3] -1. Gear Housing Complete (cont.)

DISASSEMBLING

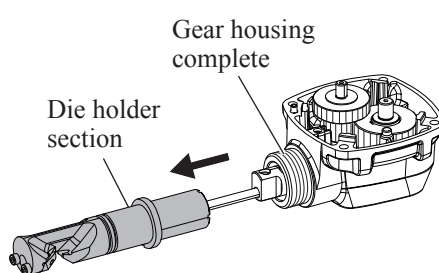
(2) Disassemble the component parts from Gear housing complete as drawn in **Fig. 3**.

Fig. 3

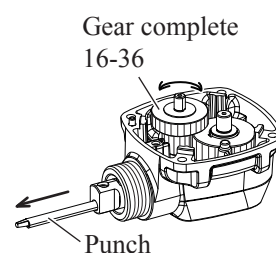
1. Remove Stopper by unscrewing Bind CT4x12 Tapping screw.



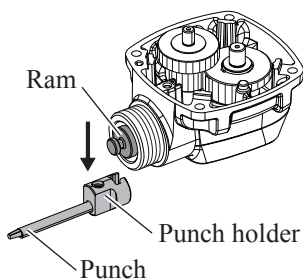
2. Pull off Die holder section from Gear housing complete.



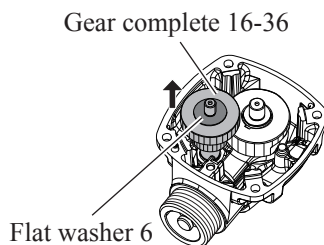
3. Set Punch to the lowest position by turning Gear complete 16-36.



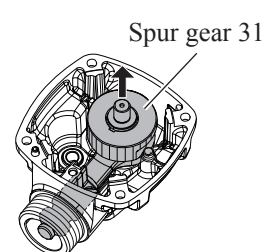
4. Remove Punch holder together with Punch from Ram.



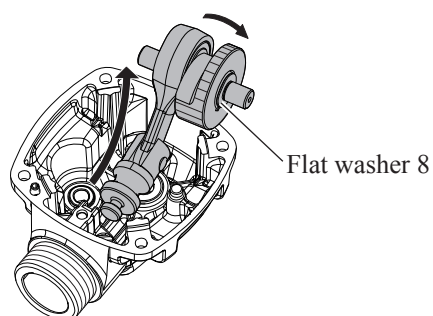
5. Remove Gear complete 16-36 from Gear housing complete.
Note: Be careful not to lose Flat washer 6.



6. Lift up Spur gear 31 until the space for twisting Spur gear 31 and Crank shaft is reserved.



7. Remove Super gear 31 together with Crank section while turning them 90°.
Note: Be careful not to lose Flat washer 8.



► Repair

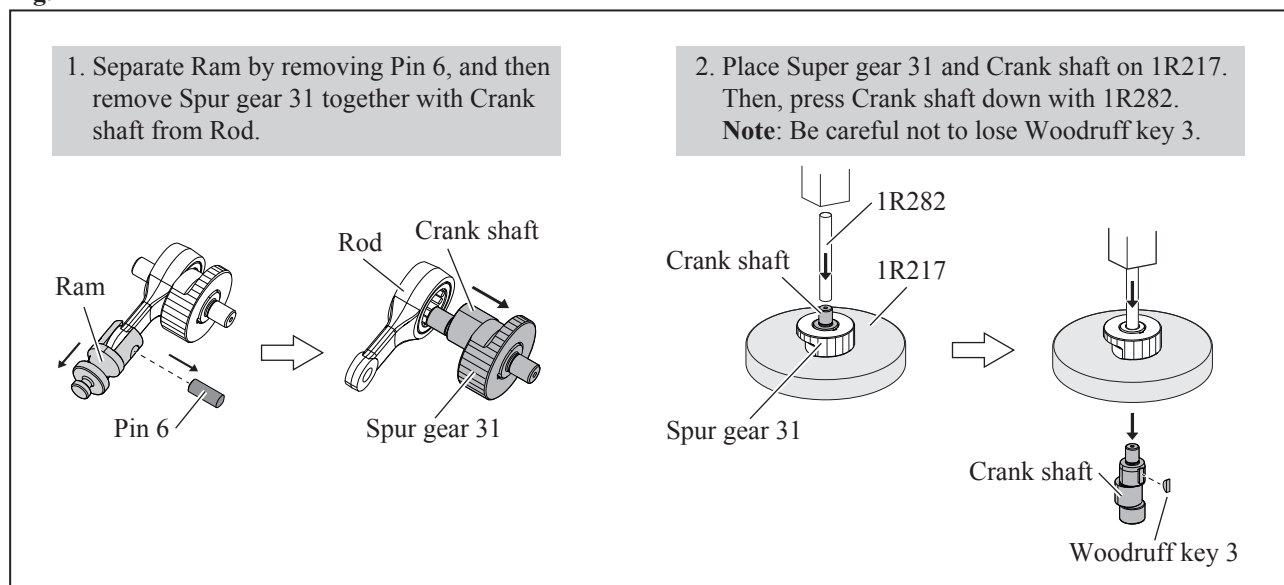
[3] DISASSEMBLY/ASSEMBLY

[3] -1. Gear Housing Complete (cont.)

DISASSEMBLING

(3) Disassemble Spur gear 31 and Crank section as drawn in **Fig. 4**.

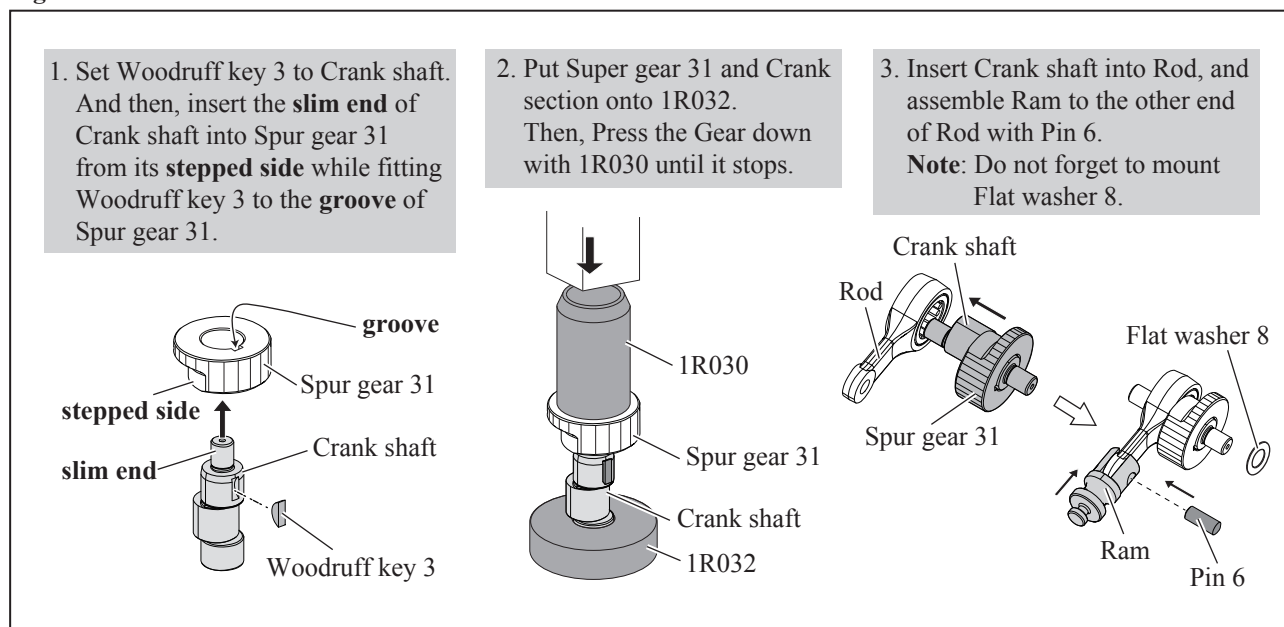
Fig. 4



ASSEMBLING

(1) Assemble Spur gear 31 and Crank section as drawn in **Fig. 5**.

Fig. 5



(2) Assemble Spur gear 31, Crank section and the other component parts to Gear housing complete by reversing the disassembly procedure. (Refer to **Fig. 3**)

Note: Do not forget to mount Flat washer 6 to Gear complete 16-36. (Refer to the **center** drawn in **Fig. 3**)

► Repair

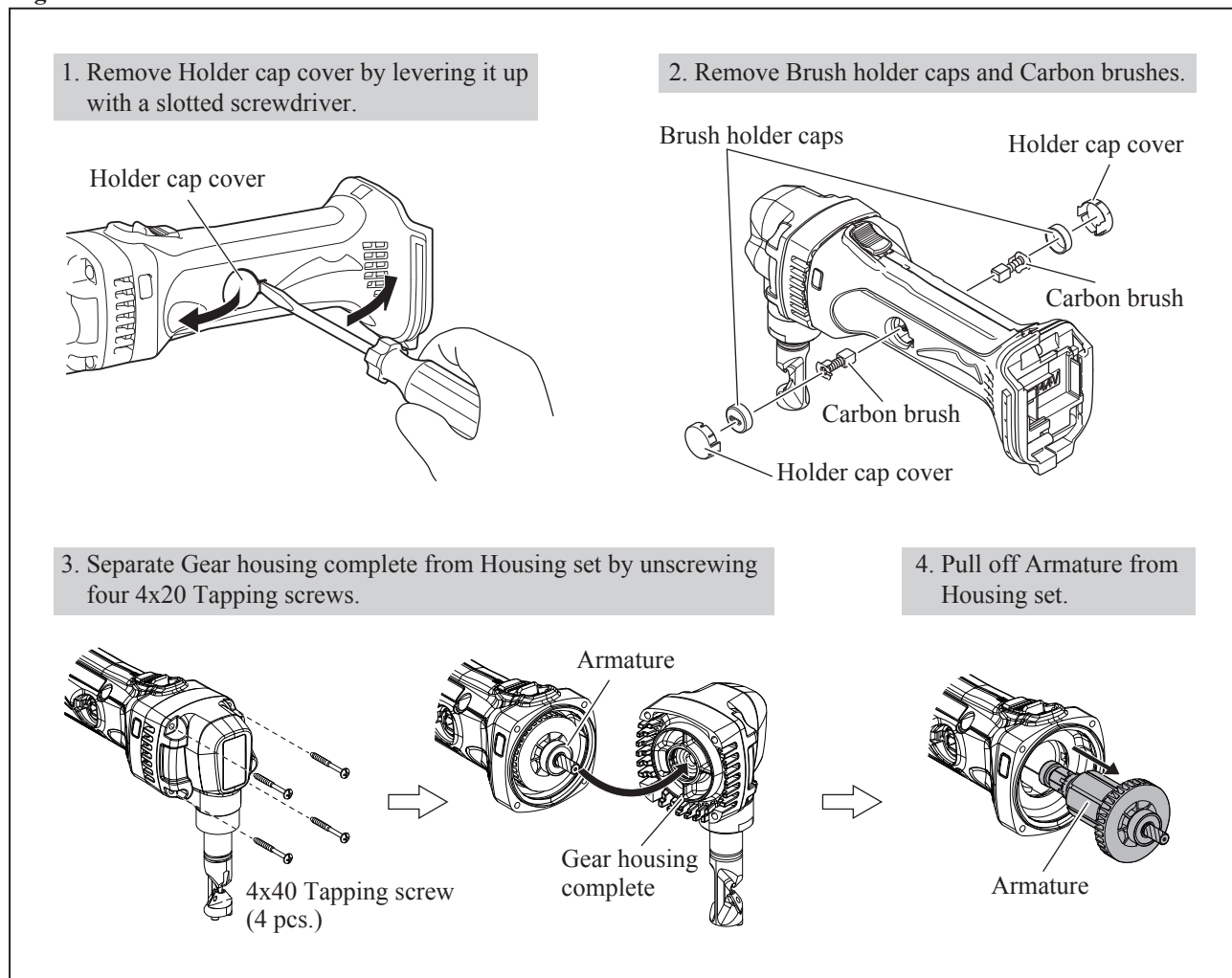
[3] DISASSEMBLY/ASSEMBLY

[3] -2. Armature

DISASSEMBLING

(3) Disassemble Carbon brushes and Armature as drawn in **Fig. 6**.

Fig. 6

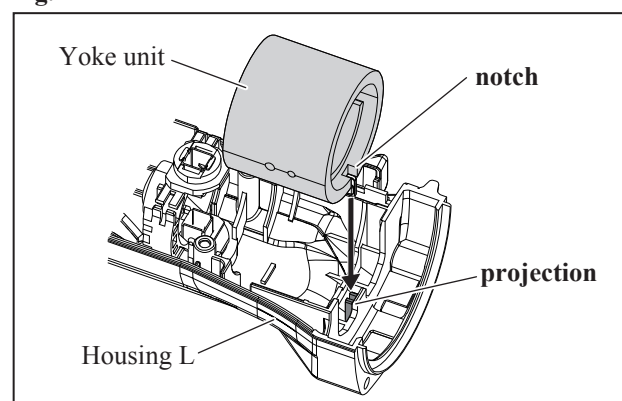


[3] -3. Yoke unit

ASSEMBLING

Assemble Yoke unit to Housing L while aligning the **notch** of Yoke unit to the **projection** on Housing L. (**Fig. 7**)

Fig. 7



► Repair

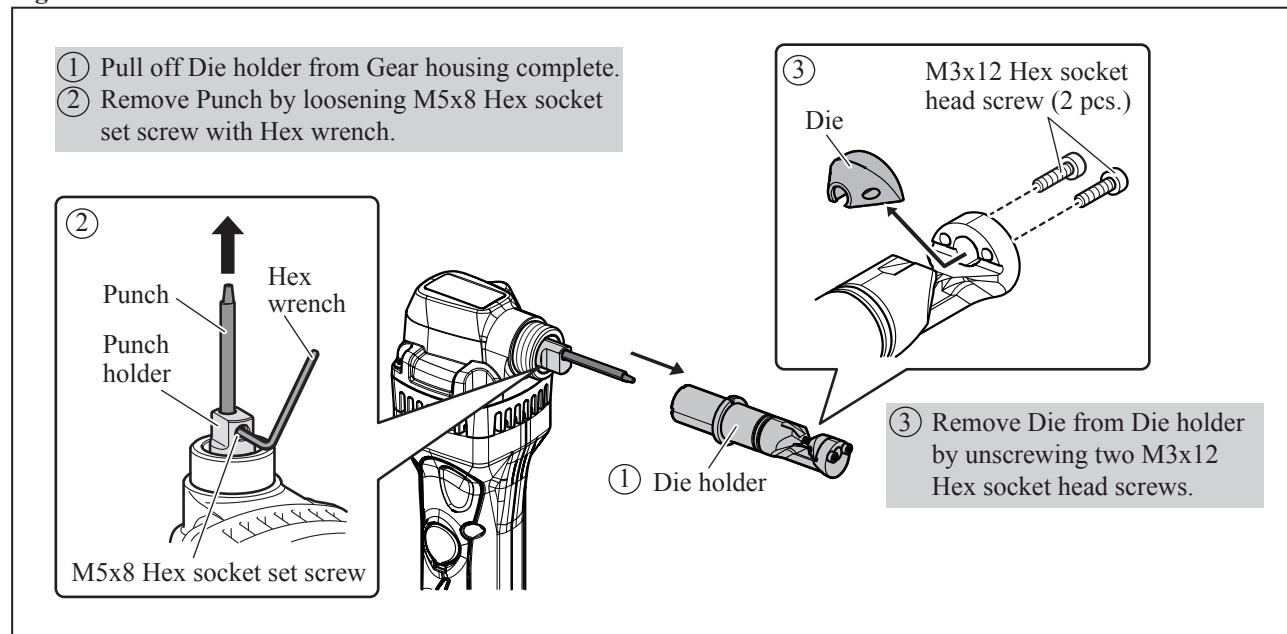
[3] DISASSEMBLY/ASSEMBLY

[3] -4. Die and Punch

DISASSEMBLING

- (1) Remove Lock nut with Wrench 32 by turning it counterclockwise. (See the **left** drawn in **Fig. 2**)
- (2) Disassemble Die and Punch as drawn in **Fig. 8**.

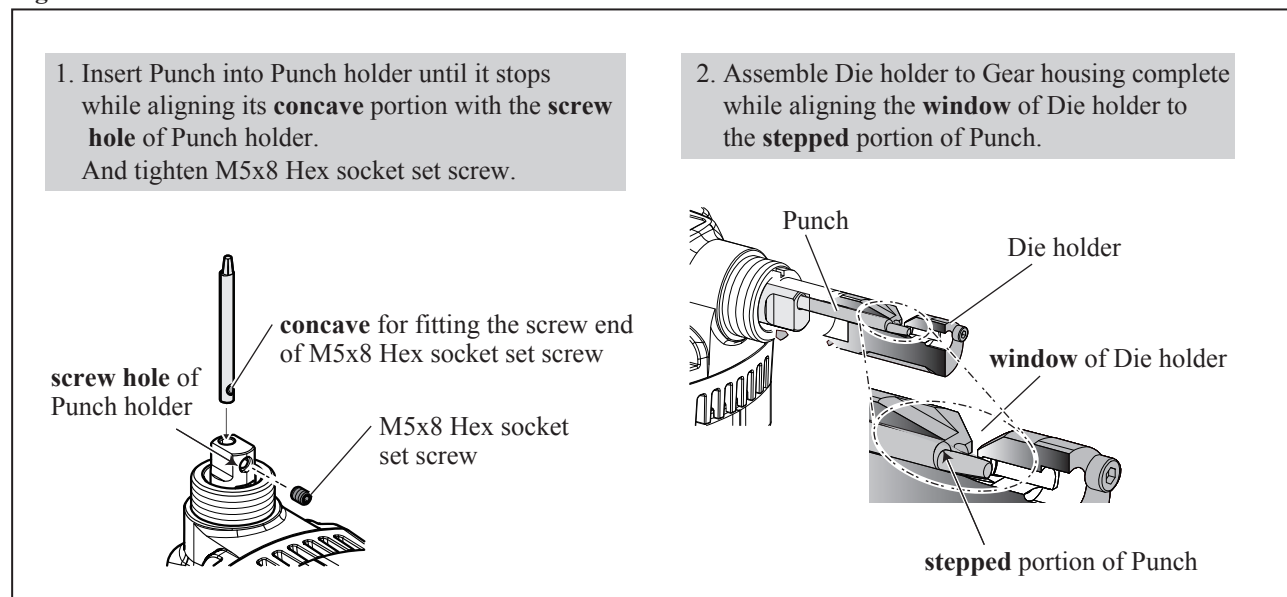
Fig. 8



ASSEMBLING

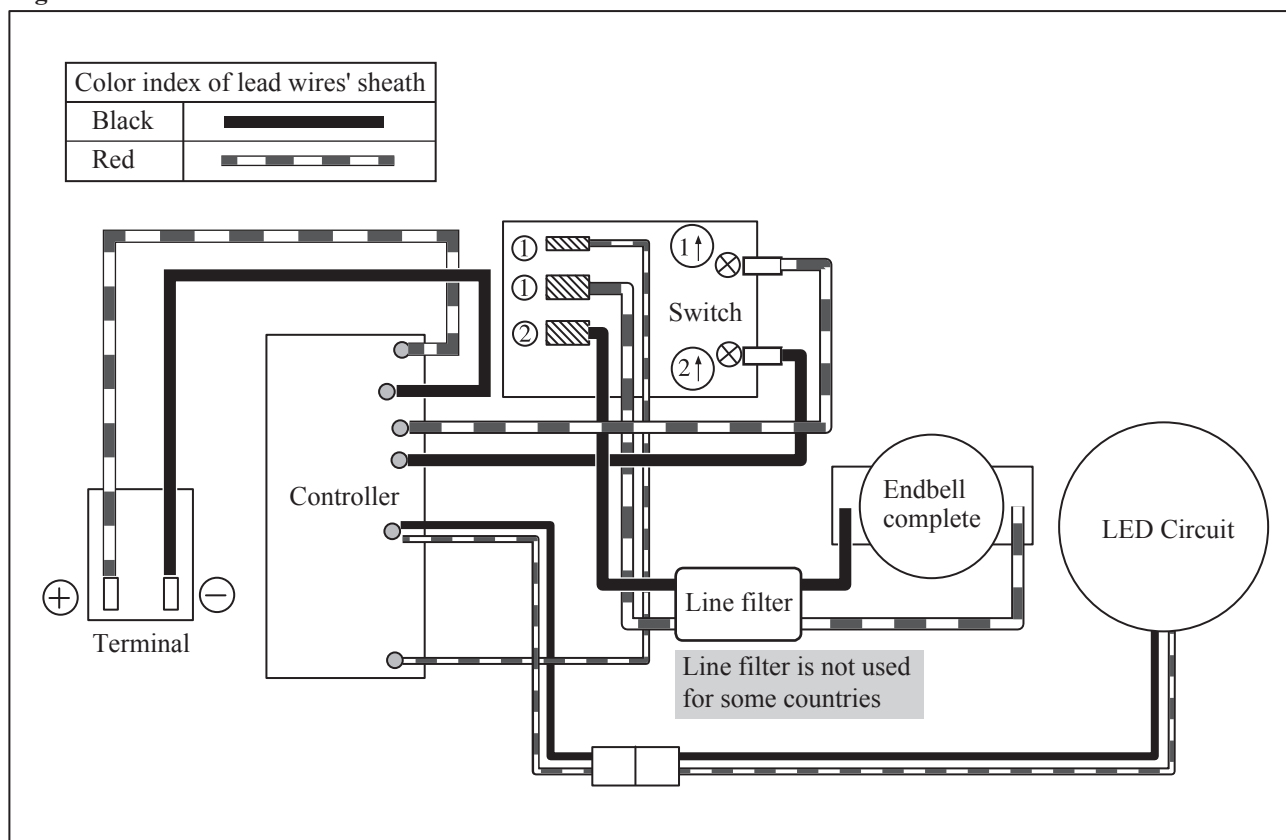
Assemble Punch and Die holder as drawn in **Fig. 9**.

Fig. 9



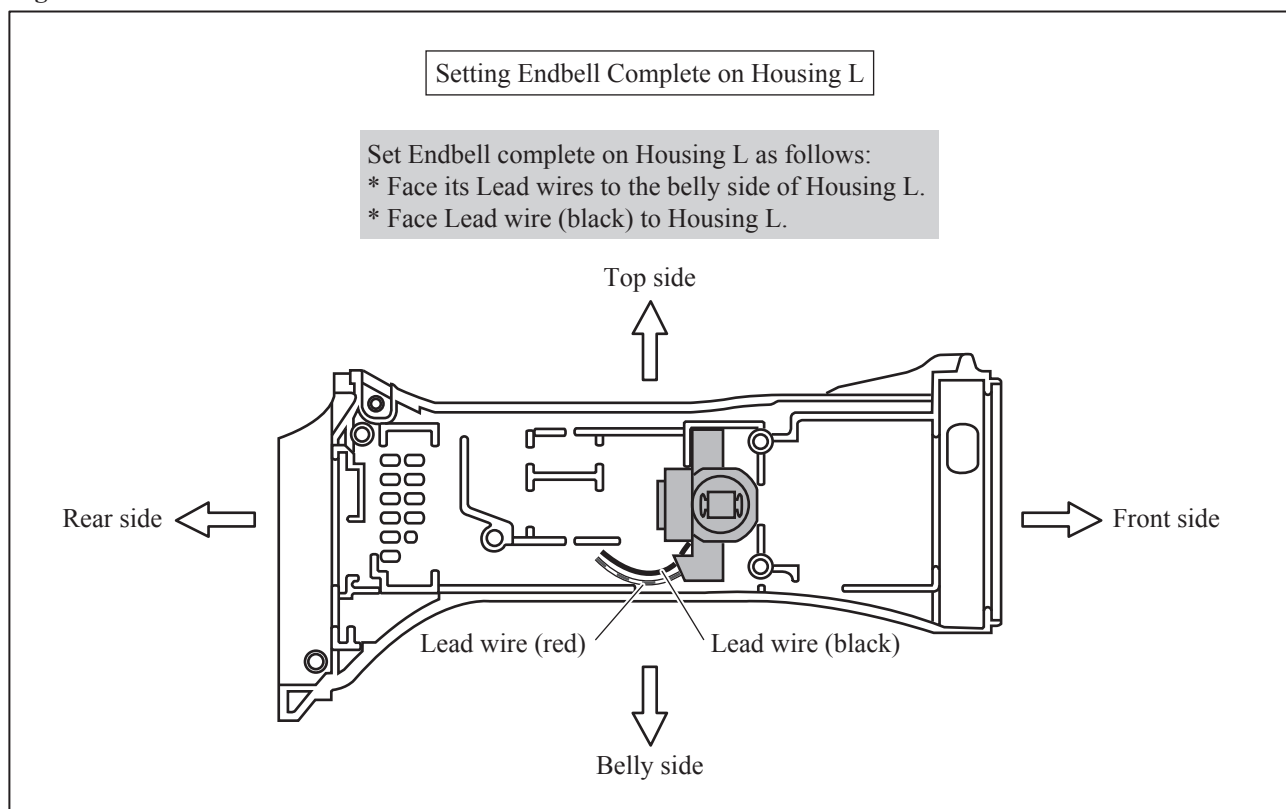
► **Circuit diagram**

Fig. D-1



► **Wiring diagram**

Fig. D-2



► **Wiring diagram**

Fig. D-3

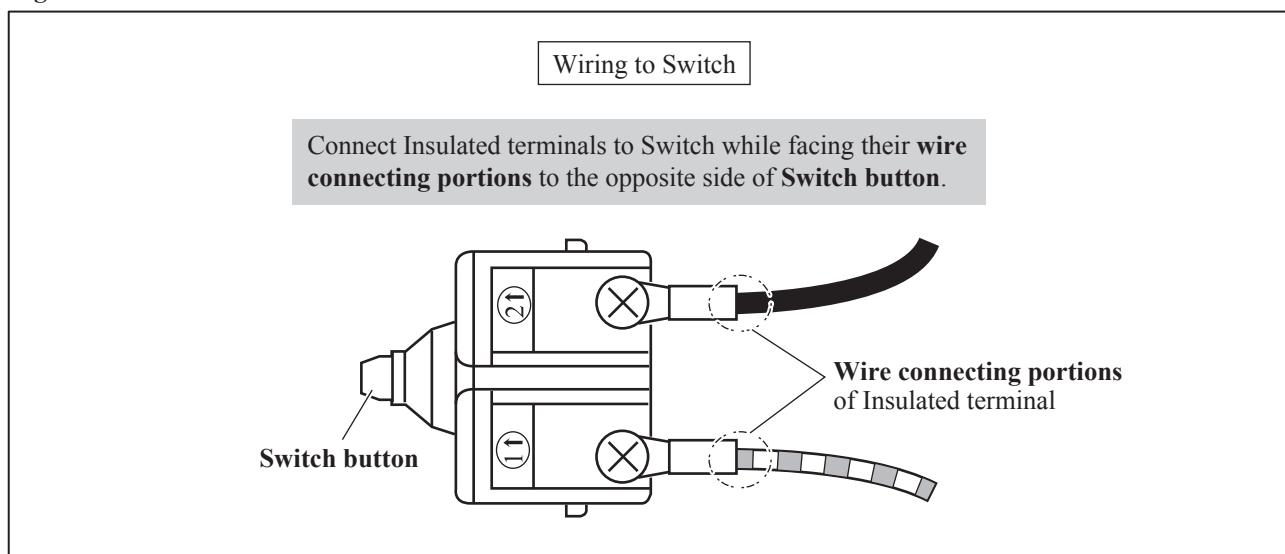


Fig. D-4

